

### IN THE CLAIMS

Please amend the claims as follows:

Claims 1-15 (Canceled).

Claim 16 (New): A voltage amplifier comprising:

a first field effect transistor with a gate, a drain, and a source, an amplifier input terminal being the gate of the first field effect transistor, and an amplifier output terminal being the drain of the first field effect transistor;

a first current generator that charges the drain of the first transistor;

a second current generator that charges the source of the first transistor, a value of the current output by the second current generator being substantially equal to a value of the current output by the first current generator;

a first capacitor with a first terminal connected to the drain of the first transistor and a second terminal connected to a first reference voltage;

a second capacitor with a first terminal connected to the source of the first transistor and a second terminal connected to a second reference voltage; and

an additional field effect transistor with a gate, a drain, and a source, of a type opposite to a type of the first field effect transistor, the drain of the additional transistor being connected to the drain of the first field effect transistor, the gate of the additional transistor being connected to a voltage that is or is not offset from the voltage applied to the gate of the first field effect transistor, the source of the additional field effect transistor being connected to the first current generator and to a first terminal of an additional capacitor, the second terminal of the additional capacitor being connected to a fixed voltage.

Claim 17 (New): An amplifier according to claim 16, wherein, when the gate of the additional transistor is connected to a voltage offset from the voltage applied to the gate of the first field effect transistor, the amplifier comprises a voltage offset circuit to form the voltage applied to the gate of the additional transistor from the voltage applied to the gate of the first field effect transistor.

Claim 18 (New): An amplifier according to claim 17, wherein the voltage offset circuit is an external voltage source.

Claim 19 (New): An amplifier according to claim 17, wherein the voltage offset circuit is a directly polarized diode.

Claim 20 (New): An amplifier according to claim 16, wherein, when the gate of the additional transistor is connected to a voltage not offset from the voltage applied to the gate of the first field effect transistor, the gate of the additional transistor and the gate of the first field effect transistor are connected together.

Claim 21 (New): An amplifier according to claim 16, further comprising a slaving circuit to control the amplifier output voltage.

Claim 22 (New): An amplifier according to claim 21, wherein the slaving circuit includes a resistor connected between the drain of the first transistor and a fixed voltage.

Claim 23 (New): An amplifier according to claim 21, wherein the slaving circuit includes a read circuit in which the amplifier output voltage is applied to the input of the read

circuit, and a control signal is output by the read circuit to control the gate of a transistor that forms the first or the second current generator.

Claim 24 (New): An amplifier according to claim 23, further comprising a low pass filter placed at an output from the read circuit to filter the control signal output by the read circuit.

Claim 25 (New): An amplifier according to claim 23, wherein the read circuit includes a voltage follower.

Claim 26 (New): An amplifier according to claim 23, wherein the read circuit includes a differential amplifier with first and second inputs, the amplifier output voltage being applied to the first input of the differential amplifier and a reference voltage being applied to the second input of the differential amplifier.

Claim 27 (New): An amplifier according to claim 23, wherein the read circuit includes an amplifier that amplifies variations of the amplifier output voltage compared with a reference voltage determined from an adjustment voltage.

Claim 28 (New): An amplifier according to claim 21, wherein the slaving circuit includes a MOS transistor mounted with a common gate and the source of which is connected to the amplifier output.

Claim 29 (New): An amplifier according to claim 16, made using MOS technology.

Claim 30 (New): X photon or gamma detector comprising a charge/voltage amplifier and a voltage/voltage amplifier that amplifies the voltage output by the charge/voltage amplifier, wherein the voltage/voltage amplifier is an amplifier according to claim 16.